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Amendments to the Claims

Please amend the claims without prejudice, as follows and consider the subsequent remarks. This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Previously presented) A physical property sensor die for monitoring the properties of a fluid, comprising:

a substantially solid insulating sensor body having a front surface and a back surface, wherein the front surface is adapted to be disposed more proximate the fluid than the back surface, and the sensor body having a known thermal conductivity, wherein the sensor body has a plurality of openings extending from the front surface to the back surface;

a plurality of independent sensing elements coupled to the front surface and encapsulated in a surround material around and between the sensing elements for monitoring the properties of the fluid, the plurality of independent sensing elements including at least one thermal sensor and at least one heater, wherein the thermal conductivity of the sensor body is low enough to substantially prohibit heat transfer between the plurality of independent sensing elements via the sensor body, wherein the sensor die includes a top profile proximate the front surface and the plurality of independent sensing elements that is substantially planarized to reduce resistance to fluid flow, and wherein the sensor body includes a continuous solid glass material opposite the plurality of sensing elements from the front surface thus providing for a more robust sensor die; and

a connection material filling the plurality of openings such that the plurality of independent sensing elements are electrically connected to corresponding connection

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material on the back surface, and the connection material is configured to accommodate connection of the connection material to an electronics substrate.

2. Canceled

3. Canceled

4. (Previously presented) The physical property sensor die of claim 1 wherein the plurality of sensing elements include an environmental sensor.

5. (Previously presented) The physical property sensor die of claim 1 wherein the plurality of sensing elements include at least a second thermal sensor.

6. (Previously presented) The physical property sensor die of claim 1 wherein the sensor body is made up of a photosensitive glass.

7. (Previously presented) The physical property sensor die of claim 14 wherein the second material in the sensor body is made up of a ceramic.

8. (Previously presented) The physical property sensor die of claim 1 wherein the sensor body is made up of a highly melting glass.

9. (Previously presented) The physical property sensor of claim 14 wherein the second material in the sensor body is highly insulating silicon.

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10. (Previously presented) The physical property sensor die of claim 7 wherein the ceramic is alumina.

11. (Previously presented) The physical property sensor die of claim 8 wherein the highly melting glass is fused silica.

12. (Canceled)

13. (Previously presented) The physical property sensor die of claim 1 wherein the plurality of sensing elements are constructed of platinum coated on the front surface.

14. (Previously presented) The physical property sensor die of claim 1 wherein the substantially solid sensor body is made up of the continuous solid glass material below the plurality of sensing elements and a second material.

15. (Previously presented) The physical property sensor die of claim 14 wherein the substantially solid sensor body includes a plug made of the continuous solid glass material positioned below the plurality of sensing elements, the plug being surrounded by the second material which makes up the remainder of the substantially solid sensor body.

16. (Previously presented) The physical property sensor die of claim 15 wherein the plug is substantially cylindrical.

17. (Canceled)

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18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

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30. (Canceled)

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31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Canceled)

35. (Previously presented) The physical property sensor die of claim 1 wherein the sensor body and the connection material have a substantially similar coefficient of thermal expansion.

36. (Previously presented) The physical property sensor die of claim 14 wherein the continuous solid glass material is positioned directly below the plurality of sensing elements.